

**Amendments to the Claims:**

1. (Cancelled)
2. (Cancelled)
3. (Currently amended) The medical device of claim † 60, wherein said vector is an adenoassociated virus vector.
- 4-8 (Cancelled)
9. (Cancelled)
10. (Currently amended) The medical device of claim † 60, wherein said vector comprises a viral vector.
11. (Original) The medical device of claim 10, wherein said vector is thermostable, replication-deficient, non-immunogenic, or a combination thereof.
12. (Currently amended) The medical device of claim † 60 wherein said expression is achieved in about 20% to about 80% of cells exposed to said genetic material.
- 13-16 (Cancelled)
17. (Currently amended) The medical device of claim † 60, wherein said polymeric coating comprises polyurethane, silicone, EVA, poly-l-lactic acid /poly ε-caprolactone blends, or a combination thereof.
18. (Currently amended) The medical device of claim † 60, wherein said polymer coating is from about 1 to about 40 layers having a thickness of from about 1 to about 10 µm/layer of coating.
19. (Currently amended) The medical device of claim † 60, wherein said structure is a stent.

20. (Original) The medical device of claim 19, wherein said stent is a metallic stent.

21-22 (Cancelled)

23. (Currently amended) The medical device of claim + 60, wherein said ~~first~~ therapeutic agent and said ~~second therapeutic agent~~ vector are applied onto or impregnated into a same layer of said polymer coating.

24. (Currently amended) A method of inhibiting or treating restenosis in a patient, said method comprising administering at a predetermined site within the body of said patient the device of claim + 60.

25. (Previously amended) The method of claim 24, wherein said site is a site of mechanical injury to an arterial wall produced by treatment of an atherosclerotic lesion by angioplasty.

26. (Cancelled)

27. (Currently amended) The method of claim 26 62, wherein said vector is adenoassociated virus vector.

28-33 (Cancelled)

34. (Currently amended) The method of claim 26 62, wherein said vector comprises a viral vector.

35. (Original) The method of claim 34, wherein said viral vector is thermostable, replication-deficient, non-immunogenic, or a combination thereof.

36. (Original) The method of claim 26 62, wherein said expression is achieved in about 20% to about 80% of cells exposed to said genetic material.

37. (Currently amended) The method of claim 26 62, wherein said vector is a delayed expression vector.

38. (Original) The method of claim 37, wherein said delayed expression is an expression delayed from about two days to about 3 weeks after administration in vivo.

39. (Previously cancelled)

40- 41 (Cancelled)

42. (Currently amended) The method of claim ~~26~~ 62, wherein said coating comprises polyurethane, silicone, EVA, poly-l-lactic acid /poly  $\epsilon$ -caprolactone blends, or a combination thereof.

43. (Currently amended) The method of claim ~~26~~ 62, wherein said polymer coating is from about 1 to about 40 layers having a thickness of from about 1 to about 10  $\mu\text{m}$ / layer of coating.

44. (Currently amended) The method of claim ~~26~~ 62, wherein said structure is a stent.

45-46 (Cancelled)

47. (Original) The method of claim 44, wherein said stent is a metallic stent.

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Cancelled)

53. (Cancelled)

54. (Currently amended) The medical device of claim + 60, wherein said vector contains regulatory sequences.

55. (Currently amended) The method of claim 26 62, wherein said vector comprises liposomes, lipofectin, lipoplexes, polyplexes, dextrans, starburst, dendrimer conjugates, polybenrene dimethyl sulfoxide, protamine sulfate, antibody conjugates, polylysine conjugates, gramicidin S, artificial conjugates, viral envelopes, viral-like particles, nano or micro particles, or a combination thereof.

56. (Cancelled)

57. (Cancelled)

58. (Currently amended) The method of claim 26 62, wherein said vector is a delayed expression vector.

59. (Currently amended) The method of claim 26 62, wherein said vector contains regulatory sequences.

60. (New) A medical device comprising:  
a biocompatible structure comprising a polymeric coating that coats at least a portion of said structure, said polymeric coating comprising:  
a therapeutic agent, said therapeutic agent selected from the group consisting of an angiogenic agent, wherein the angiogenic agent is an acidic fibroblast growth factor, basic fibroblast growth factor, vascular endothelial growth factor, epidermal growth factor, transforming growth factor  $\alpha$  and  $\beta$ , platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor  $\alpha$ , hepatocyte growth factor, or insulin growth factor; and cell cycle inhibitors;  
a vector containing a polynucleotide that establishes a gene expression sufficient to produce a therapeutically sufficient amount of one or more products encoded by said polynucleotide, wherein said polynucleotide encodes a polypeptide or protein, said polypeptide or protein selected from the group consisting of an angiogenic agent wherein the angiogenic agent is an acidic fibroblast growth factor, basic fibroblast growth factor, vascular endothelial growth factor, epidermal growth factor, transforming growth factor  $\alpha$  and  $\beta$ , platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor  $\alpha$ , hepatocyte

growth factor, and insulin growth factor; and cell cycle inhibitors; and combinations thereof.

61. (New) A medical device comprising:

a biocompatible structure comprising a polymeric coating that coats at least a portion of said structure, said polymeric coating comprising:

a therapeutic agent, said therapeutic agent selected from the group consisting of antithrombogenic agents, anti-proliferative agents, anti-inflammatory agents, antineoplastic agents, anti-mitotic agents, anesthetic agents, anticoagulants, antithrombin compounds, platelet receptor antagonists, prostaglandin inhibitors, platelet inhibitors, vascular cell growth promoters, vascular growth inhibitors, cholesterol-lowering agents, vasodilating agents, agents which interfere with endogenous vasoactive mechanisms and survival genes which protect against cell death;

a vector containing a polynucleotide that establishes a gene expression sufficient to produce a therapeutically sufficient amount of one or more products encoded by said polynucleotide, wherein said polynucleotide encodes a polypeptide or protein, said polypeptide or protein selected from the group consisting of an angiogenic agent wherein the angiogenic agent is an acidic fibroblast growth factor, basic fibroblast growth factor, vascular endothelial growth factor, epidermal growth factor, transforming growth factor  $\alpha$  and  $\beta$ , platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor  $\alpha$ , hepatocyte growth factor, and insulin growth factor; and cell cycle inhibitors; and

combinations thereof.

62. (New) A method of controlled delivery of a genetic material to a mammalian body comprising:

(A) applying a polymer coating to at least a portion of a medical device;

(B) applying a genetic material to said polymer coating to obtain a genetically coated medical device, said genetic material comprising:

a therapeutic agent, said therapeutic agent selected from the group consisting of an angiogenic agent wherein the angiogenic agent is an acidic fibroblast growth factor, basic fibroblast growth factor, vascular endothelial growth factor, epidermal growth factor, transforming growth factor  $\alpha$  and  $\beta$ , platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor  $\alpha$ , hepatocyte growth factor, and insulin growth factor; and cell cycle inhibitors;

a vector containing a polynucleotide that establishes a gene expression sufficient to produce a therapeutically sufficient amount of one or more products encoded by said polynucleotide, wherein said polynucleotide encodes a polypeptide or protein, said polypeptide or protein selected from the group consisting of an angiogenic agent selected from the group consisting of acidic fibroblast growth factors, basic fibroblast growth factors, vascular endothelial growth factor, epidermal growth factor, transforming growth factor  $\alpha$  and  $\beta$ , platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor  $\alpha$ , hepatocyte growth factor, and insulin growth factor; and cell cycle inhibitors; and

combinations thereof; and

(C) inserting or implanting said genetically coated medical device at a predetermined site in said mammal.